PLUS Results 09/451,312

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Search Results - Record(s) 1 through 10 of 12 returned.

☐ 1. Document ID: US 6160397 A

L1: Entry 1 of 12 File: DWPI Dec 12, 2000

DERWENT-ACC-NO: 2001-210020
DERWENT-WEEK: 200121

TITLE: Compensation pulses identifying method used in medical imaging, involves generating correcting gradient pulse on logical phase encoding axis to compensate phase errors

INVENTOR: HINKS, R S; WASHBURN, S S

PATENT-ASSIGNEE:

ASSIGNEE	CODE
GENERAL ELECTRIC CO	GENE

PRIORITY-DATA: 1998US-0223527 (December 30, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6160397 A	December 12, 2000	N/A	009	G01V003/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6160397A	December 30, 1998	1998US-0223527	N/A

INT-CL (IPC): G01V 3/00

ABSTRACTED-PUB-NO: US 6160397A

BASIC-ABSTRACT:

NOVELTY - The gradient pulse is generated on a logical slice select axis during RF excitation pulse. The echo signals resulting from excitation pulse are sensed and correcting gradient pulse is generated on logical phase encoding axis to compensate phase errors on logical phase encoding axis.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Method for improving magnetic resonance images;

(b) Magnetic resonance imaging system.

USE - Used in medical imaging such as magnetic resonance imaging system.

ADVANTAGE - Improves fast spin echo technique designed to reduce the image artifacts resulting from phase errors in the phase encoding direction.

DESCRIPTION OF DRAWING(S) - The figure shows the graphical representation of an exemplary FSE pulse sequence modified for measurement of phase errors in phase encoding axis including compensation pulses for correction of eddy current.

CHOSEN-DRAWING: Dwg.3/5

CHOSEN-DRAWING: Dwg.3/5

TITLE-TERMS: COMPENSATE PULSE IDENTIFY METHOD MEDICAL IMAGE GENERATE CORRECT GRADIENT PULSE LOGIC PHASE ENCODE AXIS COMPENSATE PHASE ERROR

DERWENT-CLASS: S01 S03 S05

EPI-CODES: S01-E02A2; S01-E02A8C; S03-E07A; S05-D02B2;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N2001-149960

☐ 2. Document ID: US 6078176 A, DE 19905720 A1, JP 11267111 A, CN 1234508 A

L1: Entry 2 of 12 File: DWPI Jun 20, 2000

DERWENT-ACC-NO: 1999-581816
DERWENT-WEEK: 200035

TITLE: Fast spin-echo signal pulse-train generating method for diffusion-weighted imaging in medical MRI

INVENTOR: MCKINNON, G C

PATENT-ASSIGNEE:

ASSIGNEE	CODE
GENERAL ELECTRIC CO	GENE

PRIORITY-DATA: 1998US-0023572 (February 13, 1998), 1996US-0745602 (November 8, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6078176 A	June 20, 2000	N/A	000	G01V003/00
DE 19905720 A1	September 30, 1999	N/A	010	G01R033/54
JP 11267111 A	October 5, 1999	N/A	009	A61B005/055
CN 1234508 A	November 10, 1999	N/A	000	G01R033/561

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6078176A	November 8, 1996	1996US-0745602	CIP of
US 6078176A	February 13, 1998	1998US-0023572	N/A
DE 19905720A1	February 11, 1999	1999DE-1005720	N/A
JP 11267111A	February 4, 1999	1999JP-0026798	N/A
CN 1234508A	February 13, 1999	1999CN-0102327	N/A

INT-CL (IPC): A61B 5/055; G01R 33/48; G01R 33/54; G01R 33/561; G01V 3/00

ABSTRACTED-PUB-NO: DE 19905720A
BASIC-ABSTRACT:

NOVELTY - Generates diffusion-weighted transverse spin magnetization.

DETAILED DESCRIPTION - The method has the first step of applying transverse magnetization by an RF excitation pulse and a bipolar gradient pulse to obtain

diffusion weighting. Then first gradient pulse shifts the phase of transverse magnetization. An RF pulse switches longitudinal-axis components to ensure transverse magnetization. Second bipolar gradient pulse is applied. The FSE pulse train is obtained by magnetization in the transverse plane and RF post-focussing. The picture is reconstructed from the echo signals.

USE - In generating NMR image for clinical MRI using FSE pulse sequences.

ADVANTAGE - Reduced oscillation in amplitude of echo signal. Improved FSE pulse train.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram applying the invention.

operating console 100

computer system 107

high-speed link 115

system control 122

amplifiers 127

sample space interface 133

gradient coils 139

polarization magnets 140

magnet 141

amplifiers 151,153

transmit/receive switch 154

array processor 161
ABSTRACTED-PUB-NO:

US 6078176A
EQUIVALENT-ABSTRACTS:

NOVELTY - Generates diffusion-weighted transverse spin magnetization.

DETAILED DESCRIPTION - The method has the first step of applying transverse magnetization by an RF excitation pulse and a bipolar gradient pulse to obtain diffusion weighting. Then first gradient pulse shifts the phase of transverse magnetization. An RF pulse switches longitudinal-axis components to ensure transverse magnetization. Second bipolar gradient pulse is applied. The FSE pulse train is obtained by magnetization in the transverse plane and RF post-focussing. The picture is reconstructed from the echo signals.

USE - In generating NMR image for clinical MRI using FSE pulse sequences.

ADVANTAGE - Reduced oscillation in amplitude of echo signal. Improved FSE pulse train.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram applying the invention.

operating console 100

computer system 107

high-speed link 115

system control 122

amplifiers 127

sample space interface 133

gradient coils 139

polarization magnets 140

magnet 141

amplifiers 151,153

transmit/receive switch 154

array processor 161

CHOSEN-DRAWING: Dwg.1/5

TITLE-TERMS: FAST SPIN ECHO SIGNAL PULSE TRAIN GENERATE METHOD DIFFUSION WEIGHT IMAGE MEDICAL MRI

DERWENT-CLASS: S01 S03 S05 T01 U22

EPI-CODES: S01-E02A2; S01-E02A8C; S01-H05; S03-E07A; S05-D02B; T01-J06A; U22-A01;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1999-429689

☐ 3. Document ID: JP 11513602 W, WO 9715840 A1, DE 19680904 T

L1: Entry 3 of 12 File: DWPI Nov 24, 1999

DERWENT-ACC-NO: 1997-259149
DERWENT-WEEK: 200006

TITLE: Control device for medical diagnostic appts - has entered input parameters converted into control parameters with temporary storage of parameter blocks in alternating buffer memories

INVENTOR: LINDSTEDT, W

PATENT-ASSIGNEE:

ASSIGNEE	CODE
SIEMENS AG	SIEI

PRIORITY-DATA: 1995DE-1039713 (October 25, 1995), 1995DE-1039712 (October 25, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 11513602 W	November 24, 1999	N/A	024	A61B005/055
WO 9715840 A1	May 1, 1997	G	019	G01R033/54
DE 19680904 T	December 3, 1998	N/A	000	G01R033/54

DESIGNATED-STATES: DE JP US

CITED-DOCUMENTS:2.Jnl.Ref; EP 629876 ; JP 63265303 ; US 4835690 ; US 5144242 ;

US 5349296

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 11513602W	October 16, 1996	1996WO-DE01961	N/A
JP 11513602W	October 16, 1996	1997JP-0516186	N/A
JP 11513602W		WO 9715840	Based on
WO 9715840A1	October 16, 1996	1996WO-DE01961	N/A
DE 19680904T	October 16, 1996	1996DE-1080904	N/A
DE 19680904T	October 16, 1996	1996WO-DE01961	N/A
DE 19680904T		WO 9715840	Based on

INT-CL (IPC): A61B 5/055; A61B 6/03; G01R 33/20; G01R 33/54

ABSTRACTED-PUB-NO: WO 9715840A
BASIC-ABSTRACT:

The control device has a computer (1), a data bus (2), a number of processors (6,7,15) and a number of memories (3,4,5) and an input device (11). The latter has setting devices (12,..14) for simultaneous adjustment of at least 2 input parameters which are converted into control parameters by the computer.

Pref. a buffer memory is supplied with the new data during processing, with data read-out of data for supplying it to the control at the end of a defined sequence. The control parameters may be combined as data blocks entered in alternating buffer memories activated at the end of each sequence.

USE - For magnetic resonance imaging appts with variable operation selected via user interface parameters.

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: CONTROL DEVICE MEDICAL DIAGNOSE APPARATUS ENTER INPUT PARAMETER CONVERT CONTROL PARAMETER TEMPORARY STORAGE PARAMETER BLOCK ALTERNATE BUFFER MEMORY

DERWENT-CLASS: P31 S01 S03 S05 T01

EPI-CODES: S01-E02A2; S03-E07A; S05-D02B2; T01-J06A; T01-J10A2;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1997-214239

☐ 4. Document ID: RU 2049703 C1

L1: Entry 4 of 12 File: DWPI Dec 10, 1995

DERWENT-ACC-NO: 1996-382763
DERWENT-WEEK: 199638

TITLE: Pouring mechanism for tank - comprises plug with sealing ring which is screwed into discharge boss on tank bottom

INVENTOR: SINITSIN YU, M

PATENT-ASSIGNEE:

ASSIGNEE	CODE
SINITSIN Y M	SINII

PRIORITY-DATA: 1992SU-5023554 (January 20, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RU 2049703 C1	December 10, 1995	N/A	003	B65D047/24

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
RU 2049703C1	January 20, 1992	1992SU-5023554	N/A

INT-CL (IPC): B65D 47/24

ABSTRACTED-PUB-NO: RU 2049703C
BASIC-ABSTRACT:

The discharge hole (3), in the bottom of the tank (1), is located on the centre lines of the screwed boss (2) which is welded on to the outside of the tank. The discharge hole is closed by screwing the plug (5) into the boss.

The plug (5) has an end plate (7), with sealing ring (9), which effectively closes the discharge hole (3). As the plug is unscrewed from the boss, the sealing ring allows liquid to flow through the apertures (8) in the end plate (7), into the discharge channel (6) of the plug. Four uniformly spaced apertures (8) are cut in the end plate (7) on a common radius.

ADVANTAGE - Simple construction and fabrication and reduced size. Bul. 34/10.12.95

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS: POUR MECHANISM TANK COMPRISE PLUG SEAL RING SCREW DISCHARGE BOSS TANK BOTTOM

DERWENT-CLASS: Q33

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1996-322642

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Clip Img | Image

☐ 5. Document ID: WO 9521582 A1, AU 9529166 A, US 5590655 A, EP 756473 A1

L1: Entry 5 of 12 File: DWPI Aug 17, 1995

DERWENT-ACC-NO: 1995-336702

DERWENT-WEEK: 199745

TITLE: Breast localiser for use in MRI imaging system - has MR visible marker movable relative to breast lesion during application of breast motion limiting plates, between pre- and post- contrast imaging

INVENTOR: HUSSMAN, K L

PATENT-ASSIGNEE:

ASSIGNEE	CODE
HUSSMAN K L	HUSSI

PRIORITY-DATA: 1994US-0196842 (February 15, 1994), 1993US-0124690 (September 20, 1993), 1993US-0139934 (October 20, 1993), 1993US-0172088 (December 22, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9521582 A1	August 17, 1995	E	119	A61B019/00
AU 9529166 A	August 29, 1995	N/A	000	A61B019/00
US 5590655 A	January 7, 1997	N/A	043	A61B006/00
EP 756473 A1	February 5, 1997	E	001	A61B019/00

DESIGNATED-STATES: AU BB BG BR CA CN CZ EE FI GE HU JP KP KR LK LR LT LV MG MN MX NO NZ PL RO SI SK TT UA US UZ VN AM AT BE BY CH DE FR GB KG KZ LI MD RU TJ UG AT BE CH DE FR GB LI

CITED-DOCUMENTS:DE 4325206; FR 2384481 ; US 4991579

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9521582A1	February 15, 1995	1995WO-US02046	N/A
AU 9529166A	February 15, 1995	1995AU-0029166	N/A
AU 9529166A		WO 9521582	Based on
US 5590655A	September 20, 1993	1993US-0124690	CIP of
US 5590655A	October 20, 1993	1993US-0139934	CIP of
US 5590655A	December 22, 1993	1993US-0172088	CIP of
US 5590655A	February 15, 1994	1994US-0196842	N/A
US 5590655A		US 5437280	CIP of
EP 756473A1	February 15, 1995	1995EP-0911797	N/A
EP 756473A1	February 15, 1995	1995WO-US02046	N/A
EP 756473A1		WO 9521582	Based on

INT-CL (IPC): A61B 6/00; A61B 19/00

RELATED-ACC-NO: 1995-139351

ABSTRACTED-PUB-NO: US 5590655A
BASIC-ABSTRACT:

The breast localiser for use in a selected imaging modality includes a plate (205) contoured to a chest wall for compressing a breast in the cranio-caudal direction. MR markers (212) are provided and are moveable relative to a breast lesion during application of breast motion limiting members.

A lesion localisation system uses imaging visible members and manifested sets of imaging space coordinates to define a manifest point that is colinear with a lesion and a selected entry point to the lesion. Retrograde and antegrade

lasers are used to use a manifest point in guidance of a medical instrument to the lesion.

USE/ADVANTAGE - Localising lesions identified in patient via imaging modalities i.e using magnetic resonance imaging.
ABSTRACTED-PUB-NO:

WO 9521582A
EQUIVALENT-ABSTRACTS:

A method for guiding an instrument tip to a target point identified in a patient via an imaging modality, comprising the steps of:

establishing an imaging space coordinate system;

selecting an entry point;

placing an imaging visible marker at said entry point;

imaging said target point and said entry point to determine the imaging space coordinates thereof;

determining the coordinates of a retrograde point that lies on a line defined by said entry point coordinates and said target point coordinates wherein said entry point is between said retrograde point and said target point; and,

providing a retrograde laser having a retrograde laser beam and a medical instrument having said tip;

causing said retrograde laser beam to be directed along said line to illuminate said retrograde point; and,

guiding said instrument along said line by keeping said retrograde beam on said retrograde point to position said instrument tip proximate to said target point.

CHOSEN-DRAWING: Dwg.37/43 Dwg.11a,11

TITLE-TERMS: BREAST LOCALISE MRI IMAGE SYSTEM VISIBLE MARK MOVE RELATIVE BREAST LESION APPLY BREAST MOTION LIMIT PLATE PRE POST CONTRAST IMAGE

DERWENT-CLASS: P31 S05

EPI-CODES: S05-D02B1;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1995-252510

6. Document ID: WO 9318415 A1, AU 9337935 A, EP 630481 A1, JP 08500021 W, US 5560360 A, AU 682146 B, US 5706813 A, EP 630481 B1, DE 69325508 E

L1: Entry 6 of 12 File: DWPI Sep 16, 1993

DERWENT-ACC-NO: 1993-303662
DERWENT-WEEK: 199939

TITLE: Peripheral nerve tissue imaging system - has field system to expose region to magnetic resonance fields and imaging system for producing nerve image from output indicating response of examined region

INVENTOR: FILLER, A G; HOWE, F A ; RICHARDS, T L ; TSURUDA, J S

PATENT-ASSIGNEE:

ASSIGNEE	CODE
ST GEORGE'S HOSPITAL MEDICAL SCHOOL	SGEON
UNIV WASHINGTONPITAL MEDICAL SCHOOL	UNIW
CANCER RES CAMPAIGN TECHNOLOGYCHOOL	CANCN

PRIORITY-DATA: 1993GB-0001268 (January 22, 1993), 1992GB-0005058 (March 9, 1992), 1992GB-0005541 (March 13, 1992), 1992GB-0007013 (March 30, 1992), 1992GB-0009648 (May 5, 1992), 1992GB-0010810 (May 21, 1992), 1992GB-0016383 (July 31, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9318415 A1	September 16, 1993	E	082	G01R033/56
AU 9337935 A	October 5, 1993	N/A	000	G01R033/56
EP 630481 A1	December 28, 1994	E	002	N/A
JP 08500021 W	January 9, 1996	N/A	110	A61B005/055
US 5560360 A	October 1, 1996	N/A	042	A61B005/055
AU 682146 B	September 25, 1997	N/A	000	G01R033/56
US 5706813 A	January 13, 1998	N/A	026	A61B005/055
EP 630481 B1	June 30, 1999	E	000	G01R033/56
DE 69325508 E	August 5, 1999	N/A	000	G01R033/56

DESIGNATED-STATES: AT AU BB BG BR CA CH CZ DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

CITED-DOCUMENTS:5.Jnl.Ref; JP02077239 ; JP03133423 ; WO 9005494

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9318415A1	March 8, 1993	1993WO-US02036	N/A
AU 9337935A	March 8, 1993	1993AU-0037935	N/A
AU 9337935A		WO 9318415	Based on
EP 630481A1	March 8, 1993	1993EP-0907274	N/A
EP 630481A1	March 8, 1993	1993WO-US02036	N/A
EP 630481A1		WO 9318415	Based on
JP08500021W	March 8, 1993	1993JP-0515934	N/A
JP08500021W	March 8, 1993	1993WO-US02036	N/A
JP08500021W		WO 9318415	Based on
US 5560360A	March 8, 1993	1993US-0028795	N/A
AU 682146B	March 8, 1993	1993AU-0037935	N/A
AU 682146B		AU 9337935	Previous Publ.
AU 682146B		WO 9318415	Based on
US 5706813A	March 8, 1993	1993US-0028795	CIP of
US 5706813A	June 4, 1993	1993US-0072625	CIP of
US 5706813A	June 6, 1994	1994US-0254102	Cont of
US 5706813A	March 18, 1997	1997US-0819949	N/A
US 5706813A		US 5560360	CIP of
EP 630481B1	March 8, 1993	1993EP-0907274	N/A
EP 630481B1	March 8, 1993	1993WO-US02036	N/A
EP 630481B1		WO 9318415	Based on
DE69325508E	March 8, 1993	1993DE-0625508	N/A
DE69325508E	March 8, 1993	1993EP-0907274	N/A
DE69325508E	March 8, 1993	1993WO-US02036	N/A
DE69325508E		EP 630481	Based on
DE69325508E		WO 9318415	Based on

INT-CL (IPC): A61B 5/055; G01N 33/48; G01R 33/56

RELATED-ACC-NO: 1995-036678

ABSTRACTED-PUB-NO: EP 630481B
BASIC-ABSTRACT:

The imaging appts employs a modified magnetic resonance imaging system (14) for selectively imaging neural tissue by employing one or more gradients to discriminate diffusion anisotropy in the tissue, and further enhancing the image by suppressing the contribution of fat to the image.

The neurography system is part of a broader medical system (12), which may include an auxiliary data collection system (22) diagnostic system (24), therapeutic system (26), surgical system (28), and training system (30). These various systems are all constructed to take advantage of the information provided by the neurography system regarding neural networks.

USE/ADVANTAGE - Imaging peripheral nervous system e.g autonomic and cranial nerves. Generates three-dimensional image of patients nerves and nerve plexuses non-invasively, and reduces other body structures to reveal only the nerve tree.
ABSTRACTED-PUB-NO:

US 5560360A
EQUIVALENT-ABSTRACTS:

The imaging appts employs a modified magnetic resonance imaging system (14) for selectively imaging neural tissue by employing one or more gradients to discriminate diffusion anisotropy in the tissue, and further enhancing the image by suppressing the contribution of fat to the image.

The neurography system is part of a broader medical system (12), which may include an auxiliary data collection system (22) diagnostic system (24), therapeutic system (26), surgical system (28), and training system (30). These various systems are all constructed to take advantage of the information provided by the neurography system regarding neural networks.

USE/ADVANTAGE - Imaging peripheral nervous system e.g autonomic and cranial nerves. Generates three-dimensional image of patients nerves and nerve plexuses non-invasively, and reduces other body structures to reveal only the nerve tree.

A method of utilizing magnetic resonance to determine the shape and position of mammal tissue, said method including the steps of:

(a) exposing an in vivo region of a subject to a magnetic polarizing field, the in vivo region including non-neural tissue and a nerve, the nerve including epineurium and perineurium and being a member of the group consisting of peripheral nerves, cranial nerves numbers three through twelve, and autonomic nerves;

(b) exposing the in vivo region to an electromagnetic excitation field;

(c) sensing a resonant response of the in vivo region to the polarizing and excitation fields and producing an output indicative of the resonant response;

(d) controlling the performance of the steps (a), (b), and (c) to enhance, in the output produced, the selectivity of said nerve, while the nerve is living in the in vivo region of the subject; and

(e) processing the output to generate a data set describing the shape and position of said nerve, said data set distinguishing said nerve from non-neural tissue, in the in vivo region to provide a conspicuity of the nerve that is at least 1.1 times that of any adjacent non-neural tissue, without the use of neural contrast agents.

US 5706813A

The imaging appts employs a modified magnetic resonance imaging system (14) for selectively imaging neural tissue by employing one or more gradients to discriminate diffusion anisotropy in the tissue, and further enhancing the image by suppressing the contribution of fat to the image.

The neurography system is part of a broader medical system (12), which may include an auxiliary data collection system (22) diagnostic system (24), therapeutic system (26), surgical system (28), and training system (30). These various systems are all constructed to take advantage of the information provided by the neurography system regarding neural networks.

USE/ADVANTAGE - Imaging peripheral nervous system e.g autonomic and cranial nerves. Generates three-dimensional image of patients nerves and nerve plexuses non-invasively, and reduces other body structures to reveal only the nerve tree.

WO 9318415A

CHOSEN-DRAWING: Dwg.0/24 Dwg.6A/12 Dwg.6/24

TITLE-TERMS: PERIPHERAL NERVE TISSUE IMAGE SYSTEM FIELD SYSTEM EXPOSE REGION MAGNETIC RESONANCE FIELD IMAGE SYSTEM PRODUCE NERVE IMAGE OUTPUT INDICATE RESPOND REGION

DERWENT-CLASS: P31 S01 S03 S05

EPI-CODES: S01-E02A; S01-H05; S03-E07A; S05-D02B1; S05-D02B2;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1993-233452

☐ 7. Document ID: US 5144242 A

L1: Entry 7 of 12 File: DWPI Sep 1, 1992

DERWENT-ACC-NO: 1992-315661
DERWENT-WEEK: 199238

TITLE: Continually loadable micro-code store for MRI control sequencers - loading microinstructions into one portion of store while sequencer executes microinstructions out of another portion of store

INVENTOR: HOENNINGER, J; ZEILENGA, J H

PATENT-ASSIGNEE:

ASSIGNEE	CODE
UNIV CALIFORNIA	REGC

PRIORITY-DATA: 1990US-0571258 (August 23, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5144242 A	September 1, 1992	N/A	038	G01R033/20

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 5144242A	August 23, 1990	1990US-0571258	N/A

INT-CL (IPC): G01R 33/20

ABSTRACTED-PUB-NO: US 5144242A
BASIC-ABSTRACT:

The microcoded NMR pulse sequencer for providing real time NMR system control signals, includes: a writable microcode control store adapted to store micro-instructions. A readout circuit is operatively coupled to read a sequence of micro-instructions from the microcode control store. An output circuit is coupled to receive the micro-instructions read by the readout circuit. This output circuit generating output signals for controlling real time generation of a sequence of NMR pulse stimulations.

A loading circuit is operatively coupled to the control store. The loading circuit effecting loading of micro-instructions into the control store without interrupting the real time generation of the sequence of NMR pulse stimulations.

ADVANTAGE - Decreased memory requirements. Real time control.

CHOSEN-DRAWING: Dwg.2/16

TITLE-TERMS: CONTINUE LOAD MICRO CODE STORAGE MRI CONTROL SEQUENCE LOAD MICROINSTRUCTIO N ONE PORTION STORAGE SEQUENCE EXECUTE MICROINSTRUCTION PORTION STORAGE

DERWENT-CLASS: S01 S03

EPI-CODES: S01-E02A; S01-H05; S03-E07A;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1992-241552

☐ 8. Document ID: US 5948384 A, WO 9204916 A, AU 9185142 A, EP 548157 A1, EP 566590 A1, FI 9400923 A, NO 9400658 A, EP 601010 A1, WO 9204916 A3, US 5554498 A, US 5614652 A, EP 548157 B1, DE 69129463 E, EP 861667 A2

L1: Entry 8 of 12 File: DWPI Sep 7, 1999

DERWENT-ACC-NO: 1992-131888
DERWENT-WEEK: 199943

TITLE: Novel pharmaceutical delivery via the neural system - by admin. of active agent in nerve adhesion moiety, used for diagnosis and treatment of nerve injuries and compression

INVENTOR: FILLER, A G; FILLER, A ; LEVER, A M L ; LEVER, A M

PATENT-ASSIGNEE:

ASSIGNEE	CODE
ST GEORGES ENTERPRISES LTD	SGEON
SYNGENIX LTDNTERPRISES LTD	SYNGN
ST GEORGES ENTR LTDSES LTD	SGEON

PRIORITY-DATA: 1991GB-0018676 (August 30, 1991), 1990GB-0020075 (September 14, 1990), 1990GB-0023580 (October 30, 1990), 1990GB-0027293 (December 17, 1990), 1991GB-0000233 (January 7, 1991), 1991GB-0000981 (January 16, 1991), 1991GB-0002146 (January 31, 1991), 1991GB-0010876 (May 20, 1991), 1991GB-0016373 (July 30, 1991), 1991GB-0017851 (August 19, 1991), 1991GB-0019665 (September 13, 1991), 1991GB-0023677 (November 7, 1991), 1992GB-0005470 (March 13, 1992), 1992GB-0006402 (March 24, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5948384 A	September 7, 1999	N/A	000	A61K051/00
WO 9204916 A	April 2, 1992	F	999	N/A
AU 9185142 A	April 15, 1992	N/A	000	A61K047/48
EP 548157 A1	June 30, 1993	E	123	A61K047/48
EP 566590 A1	October 27, 1993	E	000	A61K009/51
FI 9400923 A	February 25, 1994	N/A	000	C12Q000/00
NO 9400658 A	February 25, 1994	N/A	000	C12N009/12
EP 601010 A1	June 15, 1994	E	000	C12Q001/48
WO 9204916 A3	August 20, 1992	N/A	000	N/A
US 5554498 A	September 10, 1996	N/A	012	C12P019/34
US 5614652 A	March 25, 1997	N/A	030	C07F015/00
EP 548157 B1	May 20, 1998	E	013	A61K047/48
DE 69129463 E	June 25, 1998	N/A	000	A61K047/48
EP 861667 A2	September 2, 1998	E	000	A61K047/48

DESIGNATED-STATES: AU CA JP NO US AT BE CH DE DK ES FR GB GR IT LU NL SE AT BE CH DE DK ES FR GB GR IT LI LU NL SE BE CH DE DK ES FR GB GR IT LI NL SE BE CH DE DK ES FR GB GR IE IT LI MC NL SE AT BE CH DE DK ES FR GB GR IT LI LU NL SE DE FR GB

CITED-DOCUMENTS:4.Jnl.Ref; No-SR.Pub ; US 4827945 ; WO 8601112 ; WO 8800060 ; WO 8909625 ; WO 9001295 ; 1.Jnl.Ref ; DE 3711724 ; JP01200605 ; US 4001014 ; US 4101435 ; WO 9007322 ; EP 386857

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 5948384A	April 5, 1993	1993US-0988919	Div ex
US 5948384A	June 7, 1995	1995US-0473697	N/A
WO 9204916A	September 13, 1991	1991WO-EP01780	N/A
AU 9185142A	September 13, 1991	1991AU-0085142	N/A
AU 9185142A	September 13, 1991	1991WO-EP01780	N/A
AU 9185142A		WO 9204916	Based on
EP 548157A1	September 13, 1991	1991EP-0916129	N/A
EP 548157A1	September 13, 1991	1991WO-EP01780	N/A
EP 548157A1		WO 9204916	Based on
EP 566590A1	January 4, 1992	1992EP-0901269	N/A
EP 566590A1	January 4, 1992	1992WO-EP00021	N/A
EP 566590A1		WO 9211846	Based on
FI 9400923A	September 1, 1992	1992WO-GB01599	N/A
FI 9400923A	February 25, 1994	1994FI-0000923	N/A
NO 9400658A	September 1, 1992	1992WO-GB01599	N/A
NO 9400658A	February 25, 1994	1994NO-0000658	N/A
EP 601010A1	September 1, 1992	1992EP-0918221	N/A
EP 601010A1	September 1, 1992	1992WO-GB01599	N/A
EP 601010A1		WO 9305174	Based on
WO 9204916A3	September 13, 1991	1991WO-EP01780	N/A
US 5554498A	September 1, 1992	1992WO-GB01599	N/A
US 5554498A	February 28, 1994	1994US-0204144	N/A
US 5554498A		WO 9305174	Based on
US 5614652A	January 4, 1992	1992WO-EP00021	N/A
US 5614652A	October 5, 1993	1993US-0087781	N/A
US 5614652A		WO 9211846	Based on
EP 548157B1	September 13, 1991	1991EP-0916129	N/A
EP 548157B1	September 13, 1991	1991WO-EP01780	N/A
EP 548157B1	September 13, 1991	1997EP-0119199	Related to
EP 548157B1		WO 9204916	Based on
DE69129463E	September 13, 1991	1991DE-0629463	N/A
DE69129463E	September 13, 1991	1991EP-0916129	N/A
DE69129463E	September 13, 1991	1991WO-EP01780	N/A
DE69129463E		EP 548157	Based on
DE69129463E		WO 9204916	Based on
EP 861667A2	September 13, 1991	1991EP-0916129	Div ex
EP 861667A2	September 13, 1991	1997EP-0119199	N/A
EP 861667A2		EP 548157	Div ex

INT-CL (IPC): A61K 9/51; A61K 47/48; A61K 49/00; A61K 51/00; A61M 36/14; C07F 15/00; C07F 15/02; C12N 9/12; C12N 9/99; C12P 19/34; C12Q 0/00; C12Q 1/00; C12Q 1/48; C12Q 1/68; C12Q 1/70

RELATED-ACC-NO: 1992-268378;1993-100995

ABSTRACTED-PUB-NO: EP 548157B
BASIC-ABSTRACT:

(+30.10.90, 17.12.90, 07.01.91, 16.01.91, 31.01.91, 20.05.90, 30.07.91, 19.08.91-GB-023580, 027293, 000233, 000981, 002146, 010876, 016373, 017851)

New treatment of the living human or non-human body to effect (a) a desired therapeutic or prophylactic treatment; or (b) assist diagnostic or surgical treatment; comprises admin., into a vascularised peripherally innervated tissue site, or into other tissue sites innervated by a spinal root, a particulate pharmaceutical agent, comprising a nerve adhesion moiety (NAM), and a physiologically active or diagnostic marker moiety, capable of axonal transport from the tissue site.

USE/ADVANTAGE - Method can be used to check for sciatica to show the exact place of nerve root compression, without, as in myelography lumbar puncture, hospitalisation, or (using mRI) and X-ray exposure or discomfort. Other nerve compression and entrapment syndromes which can be investigated include carpal tunnel syndrome, trigeminal neuralgia, Glossopharyngeal neuralgia, hemi-facial spasm, vertigo/Meiurere 's disease, hypertension due to vagal compression, cervical radiculopathy, incontinence and impotence problens, localisation of nerve bruises and lacerations, assessment of spinal cord injury, evaluation of neuropathies e.g. in diabetes, neuropathy due to tumours or metastases or tumours, Alzheimer's disease, imaging of epileptic foci and verificatio n of denervation
ABSTRACTED-PUB-NO:

US 5554498A
EQUIVALENT-ABSTRACTS:

(+30.10.90, 17.12.90, 07.01.91, 16.01.91, 31.01.91, 20.05.90, 30.07.91, 19.08.91-GB-023580, 027293, 000233, 000981, 002146, 010876, 016373, 017851)

New treatment of the living human or non-human body to effect (a) a desired therapeutic or prophylactic treatment; or (b) assist diagnostic or surgical treatment; comprises admin., into a vascularised peripherally innervated tissue site, or into other tissue sites innervated by a spinal root, a particulate pharmaceutical agent, comprising a nerve adhesion moiety (NAM), and a physiologically active or diagnostic marker moiety, capable of axonal transport from the tissue site.

USE/ADVANTAGE - Method can be used to check for sciatica to show the exact place of nerve root compression, without, as in myelography lumbar puncture, hospitalisation, or (using mRI) and X-ray exposure or discomfort. Other nerve compression and entrapment syndromes which can be investigated include carpal tunnel syndrome, trigeminal neuralgia, Glossopharyngeal neuralgia, hemi-facial spasm, vertigo/Meiurere 's disease, hypertension due to vagal compression, cervical radiculopathy, incontinence and impotence problens, localisation of nerve bruises and lacerations, assessment of spinal cord injury, evaluation of neuropathies e.g. in diabetes, neuropathy due to tumours or metastases or tumours, Alzheimer's disease, imaging of epileptic foci and verificatio n of denervation

A kit of two or more containers packaged together, the contents comprising an IUPAC Group 3 ion, or a salt thereof, wherein said Group 3 ion is selected from the group consisting of scandium ion and lanthanum ion, and at least one reagent selected from the group consisting of:

(a) a nucleic add polymerase,

(b) a template, and

(c) a buffer solution having a pH that is substantially the optimum for the polymerase activity of said nucleic acid polymerase.

US 5614652A

A particle comprising palladium disposed within an iron oxide matrix.

US 5948384A

(+30.10.90, 17.12.90, 07.01.91, 16.01.91, 31.01.91, 20.05.90, 30.07.91,

19.08.91-GB-023580, 027293, 000233, 000981, 002146, 010876, 016373, 017851)

New treatment of the living human or non-human body to effect (a) a desired therapeutic or prophylactic treatment; or (b) assist diagnostic or surgical treatment; comprises admin., into a vascularised peripherally innervated tissue site, or into other tissue sites innervated by a spinal root, a particulate pharmaceutical agent, comprising a nerve adhesion moiety (NAM), and a physiologically active or diagnostic marker moiety, capable of axonal transport from the tissue site.

USE/ADVANTAGE - Method can be used to check for sciatica to show the exact place of nerve root compression, without, as in myelography lumbar puncture, hospitalisation, or (using mRI) and X-ray exposure or discomfort. Other nerve compression and entrapment syndromes which can be investigated include carpal tunnel syndrome, trigeminal neuralgia, Glossopharyngeal neuralgia, hemi-facial spasm, vertigo/Meiurere 's disease, hypertension due to vagal compression, cervical radiculopathy, incontinence and impotence problens, localisation of nerve bruises and lacerations, assessment of spinal cord injury, evaluation of neuropathies e.g. in diabetes, neuropathy due to tumours or metastases or tumours, Alzheimer's disease, imaging of epileptic foci and verificatio n of denervation

WO 9204916A

CHOSEN-DRAWING: Dwg.0/1 Dwg.1/1 Dwg.0/14 Dwg.0/23

TITLE-TERMS: NOVEL PHARMACEUTICAL DELIVER NEURAL SYSTEM ADMINISTER ACTIVE AGENT NERVE ADHESIVE MOIETY DIAGNOSE TREAT NERVE INJURY COMPRESS

DERWENT-CLASS: B04 B06 D16 K08 P34

CPI-CODES: B04-A04; B04-B02B4; B04-B02C; B04-B04A4; B04-B04A5; B04-B04A6; B04-B04C; B04-B04J; B04-C01; B04-C02C; B04-D02; B05-A03; B05-A04; B11-C08; B12-D07; B12-E01; B12-K04A; B12-K07; K09-B; K09-E;

CHEMICAL-CODES:

Chemical Indexing M1 *01*
Fragmentation Code
M423 M750 M903 N102 Q233 V753

Chemical Indexing M1 *02*
Fragmentation Code
M423 M760 M903 N102 Q233 V600 V615

Chemical Indexing M1 *03*
Fragmentation Code
M423 M424 M430 M740 M750 M782 M903 N102 P831 Q233 V802 V812

Chemical Indexing M2 *04*
Fragmentation Code
A421 A657 C730 M411 M430 M782 M903 M904 N102 P616 P831 Q233 V815
Specfic Compounds
18033D 18033M 18793D 18793M

Chemical Indexing M6 *05*
Fragmentation Code
M903 P210 P434 P616 P831 Q233 R611 R624 R627 R639

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1992-061710

☐ 9. Document ID: EP 399789 A, CA 2017275 A, US 5023554 A

L1: Entry 9 of 12 File: DWPI Nov 28, 1990

DERWENT-ACC-NO: 1990-356405
DERWENT-WEEK: 199048

TITLE: Fringe field MRI method - using static magnetic field gradients in conjunction with NMR RF nutation pulses to achieve volume selective NMR data acquisition

INVENTOR: CHO, Z H

PATENT-ASSIGNEE:

ASSIGNEE	CODE
UNIV CALIFORNIA	REGC

PRIORITY-DATA: 1989US-0354990 (May 22, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 399789 A	November 28, 1990	N/A	000	N/A
CA 2017275 A	November 22, 1990	N/A	000	N/A
US 5023554 A	June 11, 1991	N/A	000	N/A

DESIGNATED-STATES: AT BE CH DE ES FR GB GR IT LI LU NL SE

CITED-DOCUMENTS:2.Jnl.Ref; A3...9133 ; EP 350267 ; GB 2070254 ; NoSR.Pub ; US 4374360

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 399789A	May 22, 1990	1990EP-0305557	N/A
US 5023554A	May 22, 1989	1989US-0354990	N/A

INT-CL (IPC): G01N 24/08; G01R 33/38

ABSTRACTED-PUB-NO: EP 399789A
BASIC-ABSTRACT:

The MRI method comprises the steps of using non-homogeneous high but extremely intense high fringe magnetic fields for magnetic resonance imaging so as to obtain better advantages typically associated with ultra high field MRI.

Static magnetic field gradients inherently included in such fringe fields are actively utilised in conjunction with suitable NMR RF nutation pulses so as to achieve volume-selective NMR data aquisition. Special arrangements of static electromagnets, magnetic gradient coils and/or RF coils may be used in conjunction with novel RF/gradient pulse sequences so as to elicit and acquire suitable MRI data.

USE/ADVANTAGE - Enables high resolution proton imaging and spectroscopy. Esp. for clinical in-vivo microscopic imaging.
ABSTRACTED-PUB-NO:

US 5023554A
EQUIVALENT-ABSTRACTS:

Extremely non-homogenous high but extremely intense high fringe magnetic fields

are utilized for magnetic resonance imaging (including localization and spectroscopy) so as to better obtain advantages typically associateed with ultra high field MRI. Static magnetic field gradients inherently included in such fringe fields gradients inherently included in such fringe fields are actively utilized in conjunction with suitable NMR RF nutation pulses so as to achieve volume-selective NMR data acquisition. Special arrangements of static electromagnets, magnetic gradient coils and/or RF coils may be used in conjunction with novel RF/gradient pulse sequences so as to elicit and acquire suitable MRI data. ADVANTAGE - Reduced MRI image data acquisition time. (28pp)

CHOSEN-DRAWING: Dwg.1/16

TITLE-TERMS: FRINGE FIELD MRI METHOD STATIC MAGNETIC FIELD GRADIENT CONJUNCTION NMR RF NUTATING PULSE ACHIEVE VOLUME SELECT NMR DATA ACQUIRE

DERWENT-CLASS: S03 S05

EPI-CODES: S03-E07; S05-D02X;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1990-272208

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Clip Img | Image

☐ 10. Document ID: DE 69029216 E, EP 391515 A, US 4970457 A, EP 391515 B1

L1: Entry 10 of 12 File: DWPI Jan 9, 1997

DERWENT-ACC-NO: 1990-349754
DERWENT-WEEK: 199707

TITLE: Magnetic resonance imaging compensating for B-field variations - measuring static B-field strength during each TR interval providing field calibration data

INVENTOR: AVRAM, H; CROOKS, L E ; HAKE, K ; HALE, J D ; KAUFMAN, L ; KRAMER, D M ; WUMMER, J

PATENT-ASSIGNEE:

ASSIGNEE	CODE
UNIV CALIFORNIA	REGC

PRIORITY-DATA: 1989US-0363187 (June 8, 1989), 1989US-0333681 (April 5, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 69029216 E	January 9, 1997	N/A	000	G01R033/56
EP 391515 A	October 10, 1990	N/A	000	N/A
US 4970457 A	November 13, 1990	N/A	000	N/A
EP 391515 B1	November 27, 1996	E	032	G01R033/56

DESIGNATED-STATES: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

CITED-DOCUMENTS:A3...9118; EP 265956 ; EP 337588 ; GB 2157832 ; GB 2173001 ; NoSR.Pub ; US 4885542 ; US 4885549 ; WO 8403773

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE69029216E	January 19, 1990	1990DE-0629216	N/A
DE69029216E	January 19, 1990	1990EP-0300576	N/A
DE69029216E		EP 391515	Based on
EP 391515A	January 19, 1990	1990EP-0300576	N/A
US 4970457A	June 8, 1989	1989US-0363187	N/A
EP 391515B1	January 19, 1990	1990EP-0300576	N/A

INT-CL (IPC): G01R 33/56

ABSTRACTED-PUB-NO: EP 391515A
BASIC-ABSTRACT:

The method involves generating and recording MRI image data which is phase-encoded by magnetic gradient pulses during a sequence of several successive TR intervals to yield an image of nuclear magnetic resonance (NMR) nuclei populations within the image volume after multi-dimensional transformation. During each TR interval Bo field calibration data is generated and recorded by omitting at least one of the magnetic gradient pulses during recordation of NMR. The calibration data is processed to generate correction data to compensate MRI image data taken during each TR interval for Bo field variations in the nominally static Bo field.

The MRI image data is phase/frequency shifted for each TR interval in accordance with the correction data. The corrected MRI data is then multi-dimensionally transformed to produce an image with reduced artifacts caused by variations in the field Bo during the MRI sequence.

ADVANTAGE - Compensates for rapid variations in Bo during MRI sequence.
ABSTRACTED-PUB-NO:

EP 391515B
EQUIVALENT-ABSTRACTS:

A magnetic resonance imaging (MRI) method providing compensation for variations of a nominally static magnetic field (Bo) in an imaged volume during an MRI sequence, said method comprising the steps of: (a) generating and recording MRI image data which is phase-encoded by magnetic field gradient pulses during a sequence of plural successive repetition time (TR) intervals to yield an image of nuclear magnetic resonant (NMR) nuclei populations within said image volume after multi-dimensional transformation; (b) during each said TR interval, without the use of extra coils or samples of known substance, additionally generating and recording Bo field calibration data by removing all magnetic field gradient pulses during recordation of NMR responses; (c) processing said calibration data to generate correction data required to compensate MRI image data taken during each TR interval for Bo magnetic field variations in the nominally static Bo field; (d) phase/frequency shifting said MRI image data for each TR interval in accordance with said correction data; and (e) multi-dimensionally transforming the corrected MRI image data resulting from step (d) to produce an image having reduced artifacts caused by variations in the nominally static Bo field during said MRI sequence; said method being characterised in that (i) as a part of step (a), during each TR interval, NMR responses are selectively elicited from M plural successive slice volumes for a given phase encoding value of a first-dimension magnetic field gradient pulse, a second-dimension phase encoding magnetic field gradient pulse being present during said NMR responses; or as a part of step (a) NMR responses are simultaneou sly elicited from an entire imaged volume using a sequence having three dimensions of spatial-domain phase encoding obtained by varying magnetic field gradient pulses; and (iii) as a part of step (b), during each TR interval, a further NMR response is selectively elicited from at least one further slice volume but without magnetic field gradient pulses being present during said further NMR response.

US 4970457A

A magnetic resonance imaging (MRI) method includes the steps of generating and

recording MRI image data which is phase-encoded by magnetic gradient pulses during a sequence of successive TR intervals to yield an image of nuclear magnetic resonant (NMR) nuclei populations within the image volume after multi-dimensional transformation. During each Tr interval, field calibration data is additionally generated and recorded by omitting at least one of the magnetic gradient pulses during recordation of NMR responses. The calibration data is processed to generate correction data required to compensate MRI image data taken during each TR interval for magnetic field variations in the nominally static field. The MRI image data phase/frequen cy shifted for each TR interval in accordance with the correction data. The corrected MRI image data is multi-dimensionally transformed to produce an image having reduced artifacts caused by variations in the nominally static field during the MRI sequence. ADVANTAGE - Provides compensation for variations of a nominally static field in an imaged volume during an MRI sequence.

(20pp)

CHOSEN-DRAWING: Dwg.2/13 Dwg.1/13

TITLE-TERMS: MAGNETIC RESONANCE IMAGE COMPENSATE FIELD VARIATION MEASURE STATIC FIELD STRENGTH INTERVAL FIELD CALIBRATE DATA

DERWENT-CLASS: S01 S03 S05

EPI-CODES: S01-E01; S01-H05; S03-E07; S05-D02X;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N1990-267179

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Terms	Documents
5948384 5560360 4970457 6078176 6160397 5263482 5231354 5590655 5023554 5144242	12

Display 10 Documents, starting with Document: 11

Display Format: FULL Change Format

WEST

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Search Results - Record(s) 11 through 12 of 12 returned.

☐ 11. Document ID: WO 9002343 A, AU 8939737 A, DE 68910630 E, DK 9100236 A, EP 361551 A, EP 361551 B1, FI 9100776 A, JP 04500163 W, NO 9100639 A, US 5263482 A, ZA 8906316 A

L1: Entry 11 of 12 File: DWPI Mar 8, 1990

DERWENT-ACC-NO: 1990-099525
DERWENT-WEEK: 199013

TITLE: Thermographic imaging - using a temp. dependent paramagnetic material in an ESR enhanced magnetic resonance imaging appts.

INVENTOR: LEUNBACH, I; LEUNBACH, I B

PATENT-ASSIGNEE:

ASSIGNEE	CODE
NYCOMED INNOVATION AB	NYCON
COCKBAIN J R MTION AB	COCKI
HAFSLUND NYCOMEDON AB	HAFSN

PRIORITY-DATA: 1988GB-0019754 (August 19, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9002343 A	March 8, 1990	E	000	N/A
AU 8939737 A	March 23, 1990	N/A	000	N/A
DE 68910630 E	December 16, 1993	N/A	000	G01R033/48
DK 9100236 A	February 12, 1991	N/A	000	N/A
EP 361551 A	April 4, 1990	E	000	N/A
EP 361551 B1	November 10, 1993	E	028	G01R033/48
FI 9100776 A	February 18, 1991	N/A	000	N/A
JP 04500163 W	January 16, 1992	N/A	000	N/A
NO 9100639 A	February 18, 1991	N/A	000	N/A
US 5263482 A	November 23, 1993	N/A	014	A61B005/055
ZA 8906316 A	May 30, 1990	N/A	000	N/A

DESIGNATED-STATES: AU DK FI GB JP NO US AT BE CH DE ES FR GB GR IT LI LU NL SE AT BE CH DE ES FR GB GR IT LI LU NL SE

CITED-DOCUMENTS:2.Jnl.Ref; 3.Jnl.Ref

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9002343A	July 25, 1989	1989WO-EP02343	N/A
DE68910630E	July 25, 1989	1989DE-0610630	N/A
DE68910630E	July 25, 1989	1989EP-0201959	N/A
DE68910630E		EP 361551	Based on
EP 361551A	July 25, 1989	1989EP-0201959	N/A
EP 361551B1	July 25, 1989	1989EP-0201959	N/A
JP04500163W	July 25, 1989	1989JP-0507782	N/A
US 5263482A	July 25, 1989	1989WO-EP00875	N/A
US 5263482A	January 16, 1991	1991US-0635147	N/A
US 5263482A		WO 9002343	Based on
ZA 8906316A	August 18, 1989	1989ZA-0006316	N/A

INT-CL (IPC): A61B 5/05; A61B 5/055; A61K 49/00; A61N 5/02; G01K 1/02; G01K 7/32; G01K 11/00; G01N 24/10; G01R 33/48; G01R 33/62

ABSTRACTED-PUB-NO: EP 361551B
BASIC-ABSTRACT:

Temp. of at least one site in a body (2) contg. a paramagnetic substance having a first electron spin resonance (ESR) transition, the central frequency of which is temp. dependent, is determined by exposing the body to a first radiation selected to excite nuclear spin transitions in selected nuclei in the body, exposing the body to a second radiation of a frequency to excite the ESR transition, the radiation being at the central frequency of the ESR transition at a selected reference temp., detecting free induction decay signals from the body, and from the decay signals generating a signal indicative of the temp. at the site.

Paramagnetic substance is pref. a physiologically tolerable, structurally assymetric, nitroxide stable free radical having a temp. dependent and a temp. independent transition in its ESR spectrum and which is in soln., suspension, or dispersion in a physiologically acceptable medium. The body is exposed to a series of pulse sequences of the first radiation during a first set of which the body is exposed to the second radiation and detecting decay signals, exposing during a second set of the pulse sequences to third radiation which excites the non. temp. dependent ESR transition, and detecting decay signals, and repeating the process with the third and fourth radiation levels set at different power levels to that used during the previous sequences.

USE/ADVANTAGE - Partic in thermographic imaging to determine temp. at sites within a human or animal body during irradiation to kill malignant tissue r to determine the effect of e radiation on e malignant tissue and surrounding
ABSTRACTED-PUB-NO:

US 5263482A
EQUIVALENT-ABSTRACTS:

A method of determining temperature of at least one site of a body containing a paramagnetic substance having a first esr transition the central frequency of which is temperature dependent, said method comprising exposing said body to a first radiation of a frequency selected to excite nuclear spin transitions in selected nuclei in said body, exposing said body to a second radiation of a frequency selected to excite said esr transition, said second radiation being at the central frequency of said esr transition at a selected reference temperature, detecting free induction decay signals from the body, and from said free induction decay signals generating a signal indicative of the temperature at said site and, optionally, generating an image indicative of temperature distribution in said body.

Method for thermographic imaging includes the steps of exposing a body contg. a paramagnetic substance having a first electron spin resonance transition with temperature dependent central frequency to a first radiation for exciting nuclear spin transitions, exposing the body to a second radiation of a

frequency selected to excite the electron spin resonance transition, detecting free induction decay signals from the body and from these generating a signal indicative of the temperature at the selected site on the body.

ADVANTAGE - Allows detection of hot spots during radiography treatment.

WO 9002343A

CHOSEN-DRAWING: Dwg.1/2 Dwg.1/2

TITLE-TERMS: THERMOGRAPHIC IMAGE TEMPERATURE DEPEND PARAMAGNETIC MATERIAL ESR ENHANCE MAGNETIC RESONANCE IMAGE APPARATUS

DERWENT-CLASS: J04 K08 P31 P34 S01 S03 S05

CPI-CODES: J04-B01A; K09-B;

EPI-CODES: S01-E; S01-H05; S03-B01X; S03-E07; S05-A03; S05-D02X;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1990-043741
Non-CPI Secondary Accession Numbers: N1990-076897

☐ 12. Document ID: PH 28788 A, EP 355884 A, WO 9002345 A, ZA 8906317 A, AU 8939708 A, FI 9100775 A, NO 9100638 A, DK 9100237 A, JP 04503612 W, AU 632488 B, US 5231354 A, EP 355884 B1, DE 68913859 E, ES 2050216 T3, CA 1329639 C, IE 63397 B, NO 301616 B1

L1: Entry 12 of 12 File: DWPI Mar 10, 1995

DERWENT-ACC-NO: 1990-060624
DERWENT-WEEK: 199842

TITLE: Nuclear magnetic resonance imaging - obtd. electron spin resonance enhancement in uniform magnetic field at specific gauss

INVENTOR: LEUNBACH, I

PATENT-ASSIGNEE:

ASSIGNEE	CODE
HAFSLUND NYCOMED INNOVATION AB	HAFSN
NYCOMED INNOVATION ABVATION AB	NYCON
COCKBAIN J R MTION ABVATION AB	COCKI
HAFSLUND NYCOMED INABVATION AB	HAFSN

PRIORITY-DATA: 1988GB-0019753 (August 19, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
PH 28788 A	March 10, 1995	N/A	000	G01R033/20
EP 355884 A	February 28, 1990	E	019	N/A
WO 9002345 A	March 8, 1990	E	000	N/A
ZA 8906317 A	May 30, 1990	N/A	000	N/A
AU 8939708 A	March 23, 1990	N/A	000	N/A
FI 9100775 A	February 18, 1991	N/A	000	N/A
NO 9100638 A	February 18, 1991	N/A	000	N/A
DK 9100237 A	February 12, 1991	N/A	000	N/A
JP 04503612 W	July 2, 1992	N/A	019	A61B005/055
AU 632488 B	January 7, 1993	N/A	000	G01R033/56
US 5231354 A	July 27, 1993	N/A	014	G01R033/20
EP 355884 B1	March 16, 1994	E	019	G01R033/56
DE 68913859 E	April 21, 1994	N/A	000	G01R033/56
ES 2050216 T3	May 16, 1994	N/A	000	G01R033/56
CA 1329639 C	May 17, 1994	N/A	000	G01R033/56
IE 63397 B	April 19, 1995	N/A	000	G01R033/56
NO 301616 B1	November 17, 1997	N/A	000	G01R033/56

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APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
PH 28788A	August 18, 1989	1989PH-0039116	N/A
EP 355884A	July 25, 1989	1989EP-0201958	N/A
WO 9002345A	July 25, 1989	1989WO-EP00874	N/A
ZA 8906317A	August 18, 1989	1989ZA-0006317	N/A
JP04503612W	July 25, 1989	1989JP-0507781	N/A
JP04503612W	July 25, 1989	1989WO-EP00874	N/A
JP04503612W		WO 9002345	Based on
AU 632488B	July 25, 1989	1989AU-0039708	N/A
AU 632488B		AU 8939708	Previous Publ.
AU 632488B		WO 9002345	Based on
US 5231354A	July 25, 1989	1989WO-EP00874	N/A
US 5231354A	January 16, 1991	1991US-0635150	N/A
US 5231354A		WO 9002345	Based on
EP 355884B1	July 25, 1989	1989EP-0201958	N/A
DE68913859E	July 25, 1989	1989DE-0613859	N/A
DE68913859E	July 25, 1989	1989EP-0201958	N/A
DE68913859E		EP 355884	Based on
ES 2050216T3	July 25, 1989	1989EP-0201958	N/A
ES 2050216T3		EP 355884	Based on
CA 1329639C	August 17, 1989	1989CA-0608662	N/A
IE 63397B	August 18, 1989	1989IE-0002659	N/A
NO 301616B1	July 25, 1989	1989WO-EP00874	N/A
NO 301616B1	February 18, 1991	1991NO-0000638	N/A
NO 301616B1		NO 9100638	Previous Publ.

B1 INT-CL (IPC): A61B 5/055; A61K 49/00; G01N 0/00; G01R 33/20; G01R 33/48; G01R 33/56; G01R 33/62

ABSTRACTED-PUB-NO: EP 355884A
BASIC-ABSTRACT:

Magnetic resonance imaging of a sample (2), exposed to a uniform magnetic field with a series of magnetic field gradients superimposed, is effected by electron spin resonance enhanced magnetic resonance imaging in a uniform field which is either the earths field or an imposed field (from 3) of not more than 20 gauss combined with a field (from 20,21) which cancels out the earths field.

Pref. uses a contrast medium in the sample to be imaged, the contrast medium being a physiologically tolerable nitroxide stable free radical having in its esr spectrum a multiplet or a broad peak. A first radiation source of 1 to 50 kHz excites nuclear spin transitions in selected nuclei in the sample being imaged, a second radiation source of 20 to 1000 mHZ excites electron spin transitions coupled to nuclear spin transitions of least some of the selected nuclei, and free induction decay signals from the selected nuclei are detected.

USE/ADVANTAGE - Partic. in diagnostic imaging or mass screening of patients. Conventional magnetic resonance imaging has to employ high field strengths requiring high power inputs to electromagnet coils, e.g. 30KW, with its attendant heat dissipation problems, or expensive superconducting magnets. Using enhanced electron spin resonance no high fields are required.
ABSTRACTED-PUB-NO:

EP 355884B
EQUIVALENT-ABSTRACTS:

A method of electron spin resonance enhanced magnetic resonance imaging of a sample exposed to a uniform magnetic field which has superimposed thereon a series of magnetic field gradients, which method comprises exposing said sample to a first radiation of a frequency selected to excite nuclear spin transitions in selected nuclei in said sample and to a second radiation of a frequency selected to excite electron spin transitions coupled to nuclear spin transitions of at least some of said nuclei, detecting free induction decay signals from said sample and generating therefrom an image of said sample, characterised in that said uniform field is the earth's ambient magnetic field or in an imposed magnetic field of not greater than 2 milliTesla combined with a magnetic field arranged to cancel out the earth's ambient field at the sample.

US 5231354A

For magnetic resonance imaging, a sample is exposed to the earths ambient magnetic field and a series of magnetic field gradients is superimposed onto this. Imaging is electron spin resonance enhanced. The sample is pref. exposed to radiation to excite nuclear spin transitions coupled to nuclear spin transitions of some of the nuclei.

A paramagnetic contrast agent having in its esr spectrum a transition excitable by the second radiation is pref. introduced into the sample and is most pref. a nitroxide stable free radical. The transition pref. forms part of a multiplet in the spectrum and is separated from the multiplet centre by at least 2 gauss at the uniform field.

USE/ADVANTAGE - For medical diagnostic imaging or mass screening, dispenses with the prim. magnet by using the earths field and provides enhancement to partly offset the redn. in signal strength due to the low field.

CHOSEN-DRAWING: Dwg.1/2 Dwg.1/2 Dwg.1/2

TITLE-TERMS: NUCLEAR MAGNETIC RESONANCE IMAGE OBTAIN ELECTRON SPIN RESONANCE ENHANCE UNIFORM MAGNETIC FIELD SPECIFIC GAUSS

DERWENT-CLASS: B04 P31 S03 S05

CPI-CODES: B05-C03; B11-C08A; B12-K04C;

EPI-CODES: S03-E07; S05-D02X;

CHEMICAL-CODES:

Chemical Indexing M1 *02*
Fragmentation Code
C101 C812 D010 D011 D012 D020 D030 D040 F010 F012
F015 F016 F017 F019 F021 F029 F422 F423 F432 F433
F443 H100 H121 H211 H401 H402 H403 H404 H405 H421
H481 H482 H483 H484 H521 H600 H621 J011 J012 J013
J111 J171 J172 J211 J311 J521 J522 J523 K0 K7
K742 L930 M116 M210 M211 M212 M213 M214 M215 M216
M220 M221 M222 M223 M224 M225 M226 M231 M232 M233
M240 M272 M280 M281 M282 M283 M311 M312 M313 M314
M315 M316 M320 M321 M322 M323 M331 M332 M333 M340
M342 M372 M373 M391 M392 M393 M423 M424 M510 M511
M520 M521 M522 M530 M540 M740 M903 N102 P831 V735
V752 V772 V794
Registry Numbers
1327U 0502U

Chemical Indexing M2 *01*
Fragmentation Code
C101 C812 D010 D011 D012 D020 D030 D040 F010 F012
F015 F016 F017 F019 F021 F029 F422 F423 F432 F433
F443 H100 H121 H211 H401 H402 H403 H404 H405 H421
H481 H482 H483 H484 H521 H600 H621 J011 J012 J013
J111 J171 J172 J211 J311 J521 J522 J523 K0 K7
K742 L930 M116 M210 M211 M212 M213 M214 M215 M216
M220 M221 M222 M223 M224 M225 M226 M231 M232 M233
M240 M272 M280 M281 M282 M283 M311 M312 M313 M314
M315 M316 M320 M321 M322 M323 M331 M332 M333 M340
M342 M372 M373 M391 M392 M393 M412 M413 M424 M510
M511 M520 M521 M522 M530 M540 M740 M903 M904 N102
P831
Markush Compounds
199009-10701-D 199009-10702-D 199009-10703-D 199009-10704-D
Registry Numbers
1327U 0502U

Chemical Indexing M6 *03*
Fragmentation Code
M903 P831 R515 R528
Registry Numbers
1327U 0502U

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1990-026340
Non-CPI Secondary Accession Numbers: N1990-046567

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